

HIGH-LEVEL WASTE

DOE to clarify definition of HLW

Under the DOE's interpretation, not all waste from spent fuel reprocessing would be defined as high-level radioactive waste.

The Department of Energy is seeking public comment on its interpretation of the definition of the statutory term “high-level radioactive waste” as set forth in the Atomic Energy Act (AEA) of 1954 (as amended) and the Nuclear Waste Policy Act (NWPA) of 1982. The request for public comments was published in a notice in the October 10 *Federal Register*. The 60-day public comment period ends on December 10.

According to the DOE, the statutory term indicates that not all wastes from the reprocessing of spent nuclear fuel are HLW, and under the department's interpretation, some reprocessing wastes may be classified as non-HLW and may not require disposal in a deep geologic repository.

The DOE manages large inventories of legacy waste resulting from spent nuclear fuel reprocessing activities from atomic energy defense programs, along with a small quantity of vitrified waste from a demonstration of commercial spent fuel reprocessing. The liquid reprocessing wastes are currently stored in underground tanks at the Savannah River Site (SRS) in South Carolina, Idaho National Laboratory (INL), and the Hanford Site

in Washington. Vitrified solid wastes are held at SRS, INL, and the West Valley Demonstration Project in New York.

The DOE's interpretation of HLW is that reprocessing waste is non-HLW if the waste (1) does not exceed concentration limits for Class C low-level radioactive waste as set out in Title 10, Part 61.55, of the *Code of Federal Regulations* or (2) does not require disposal in a deep geologic repository and meets the performance objectives of a disposal facility as demonstrated through a performance assessment conducted in accordance with applicable regulatory requirements.

The U.S. Congress, through the AEA and NWPA, defines HLW as “the highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations.” Any other highly radioactive material that requires permanent isolation according to Nuclear Regulatory Commission rules is also considered HLW. Congress, however, did not set standards for what constitutes “highly radioactive” and “sufficient concentrations” of fission products, leaving it to the DOE to determine when those standards are met.

“Given Congress's intent that not all reprocessing waste is HLW, it is appropriate for DOE to use its expertise to interpret the definition of HLW, consistent with proper statutory construction, to distinguish waste that is non-HLW from waste that is HLW,” the DOE's notice states.

The DOE's HLW interpretation was applauded by the Energy Communities Alliance, an organization of local governments located near DOE sites, which noted that clarifying waste definitions based on composition rather than origin can create additional disposal pathways, expediting the cleanup of DOE sites and saving taxpayers as much as \$40 billion.

“Today is the important first step in understanding whether basing treatment and disposal decisions on the *actual* characteristics of waste and the risk to human

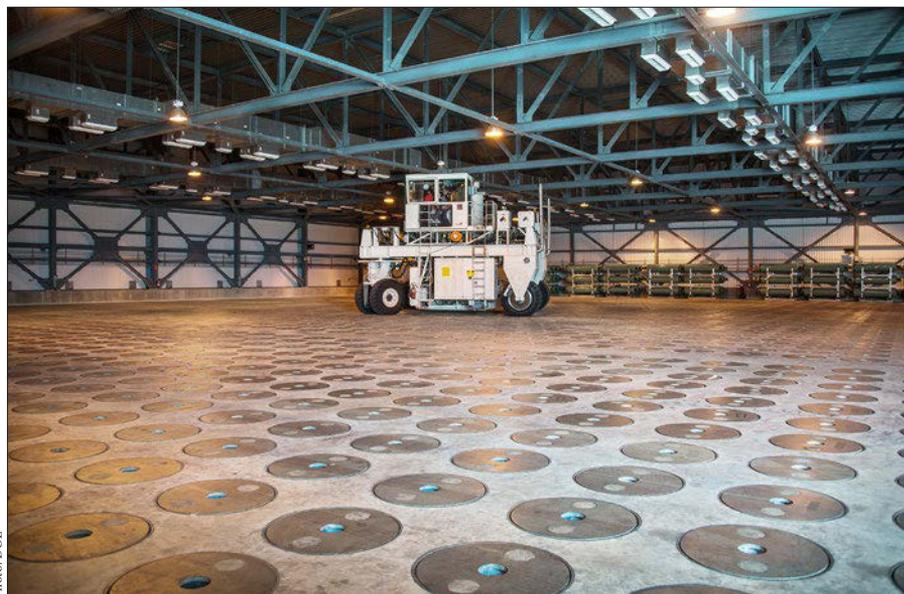


Photo: DOE

Canisters of vitrified HLW are stored at the Savannah River Site in South Carolina.

health and safety—rather than continuing to classify waste based on origin—helps DOE to move waste out of many of our communities more efficiently using a safe, smarter decision framework,” said Kara Colton, ECA’s director of Nuclear Energy Policies, in an ECA press release.

Concerned that changes to the classification of HLW could lead to radioactive waste being sent to Nevada, Sen. Dean Heller (R., Nev.) has asked the DOE for additional information regarding the

proposed HLW interpretation. In an October 5 letter to Energy Secretary Rick Perry, Heller wrote, “As someone who has worked repeatedly with the Senate Appropriations Committee, the Senate Armed Services Committee, and Senate leadership to ensure that not a single dollar goes toward funding the failed Yucca Mountain Project, I am troubled by any action, such as the reclassification of high-level nuclear waste, that could potentially be undertaken to disrupt or circumvent

the restrictions on Yucca Mountain that I marshaled into law.”

Comments on the DOE’s interpretation of HLW can be sent by email to <HLWnotice@em.doe.gov>, or mailed to Theresa Kliczewski, U.S. Department of Energy, Office of Environmental Management, Office of Waste and Materials Management (EM-4.2), 1000 Independence Ave. SW, Washington, DC 20585.